

said sheet is made to enter a zone in which the sheet is heated to a temperature reaching at least the melting point of the thermoplastic without reaching the softening temperature of the reinforcing fibres;

the sheet is made to pass through a rotating impregnation device, while maintaining the sheet at a temperature at which the thermoplastic is malleable, in order to distribute the molten thermoplastic uniformly and guarantee that the reinforcing fibres are completely impregnated by the latter;

the sheet is introduced into a shaping and centring device including a roller in a shape of a hyperboloid, while maintaining the sheet at a temperature at which the thermoplastic is malleable, so as to obtain a tape formed by bringing the yarns together so as to be touching, thereby creating transverse continuity;

the tape is cooled in order to consolidate the yarns by freezing the thermoplastic and dimensional characteristics of the tape and appearance of the tape are set in order to deliver said composite tape.

*Sub D<sup>2</sup>*  
C<sup>2</sup> 20. (Once Amended) A process for manufacturing a composite tape, said process comprising the steps of:

entraining and bringing together a multiplicity of yarns based on thermoplastic organic material and reinforcing fibres in a parallel manner to form a sheet;

heating the sheet by entering the sheet into a heating zone in which the sheet is heated to a temperature of at least a melting point temperature of the thermoplastic and less than a softening temperature of the reinforcing fibres;

passing the sheet through a rotating impregnation device, while maintaining the sheet at a temperature at which the thermoplastic is malleable, so as to ensure that molten thermoplastic is distributed uniformly and guarantee that the reinforcing fibres are completely impregnated by the molten thermoplastic;